[4910-13-U]

DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39 [66 FR 17492 4/2/2001]

[Docket No. 99-NM-127-AD; Amendment 39-12159; AD 2001-06-12]

RIN 2120-AA64

Airworthiness Directives; Boeing Model 767 Series Airplanes Powered by General Electric Engines

AGENCY: Federal Aviation Administration, DOT.

ACTION: Final rule.

SUMMARY: This amendment adopts a new airworthiness directive (AD), applicable to certain Boeing Model 767 series airplanes powered by General Electric engines, that requires modification of the nacelle strut and wing structure. This amendment is prompted by reports indicating that the actual operational loads applied to the nacelle are higher than the analytical loads that were used during the initial design. Such an increase in loading can lead to fatigue cracking in the primary strut structure prior to an airplane reaching its design service objective. The actions specified by this AD are intended to prevent fatigue cracking in the primary strut structure and consequent reduced structural integrity of the strut.

DATES: Effective May 7, 2001.

The incorporation by reference of certain publications listed in the regulations is approved by the Director of the Federal Register as of May 7, 2001.

The incorporation by reference of a certain other publication, as listed in the regulations, was approved previously by the Director of the Federal Register as of July 24, 2000 (65 FR 37843, June 19, 2000).

The incorporation by reference of certain other publications, as listed in the regulations, was approved previously by the Director of the Federal Register as of October 17, 2000 (65 FR 58641, October 2, 2000).

The incorporation by reference of certain other publications, as listed in the regulations, was approved previously by the Director of the Federal Register as of March 5, 2001 (66 FR 8085, January 29, 2001).

ADDRESSES: The service information referenced in this AD may be obtained from Boeing Commercial Airplane Group, P.O. Box 3707, Seattle, Washington 98124-2207. This information may be examined at the Federal Aviation Administration (FAA), Transport Airplane Directorate, Rules Docket, 1601 Lind Avenue, SW., Renton, Washington; or at the Office of the Federal Register, 800 North Capitol Street, NW., suite 700, Washington, DC.

FOR FURTHER INFORMATION CONTACT: John Craycraft, Aerospace Engineer, Airframe Branch, ANM-120S, FAA, Seattle Aircraft Certification Office, 1601 Lind Avenue, SW., Renton, Washington 98055-4056; telephone (425) 227-2782; fax (425) 227-1181.

SUPPLEMENTARY INFORMATION: A proposal to amend part 39 of the Federal Aviation Regulations (14 CFR part 39) to include an airworthiness directive (AD) that is applicable to certain Boeing Model 767 series airplanes powered by General Electric engines was published in the **Federal Register** on October 10, 2000 (65 FR 60126). That action proposed to require modification of the nacelle strut and wing structure.

Comments

Interested persons have been afforded an opportunity to participate in the making of this amendment. Due consideration has been given to the comments received.

Request to Reference Revised Service Information

One commenter requests that the FAA revise paragraph (b) to reference Boeing Service Bulletin 767-54-0069, Revision 2, dated August 31, 2000, in addition to Boeing Service Bulletin 767-54-0069, Revision 1, dated January 29, 1998, as an acceptable source of service information for the applicable requirement of that paragraph.

The FAA concurs with the commenter's request. Since the issuance of the proposal, the FAA has reviewed and approved Boeing Service Bulletin 767-54-0069, Revision 2, in connection with AD 2001-02-07, amendment 39-12091 (66 FR 8085, January 29, 2001). That AD, among other things, requires accomplishment of the actions in Boeing Service Bulletin 767-54-0069, Revision 1 or Revision 2. Accordingly, paragraph (b) of this AD has been revised to reference both Revisions 1 and 2 of that service bulletin as appropriate sources of service information. Also, a new Note 4 has been added to this final rule, and subsequent notes have been reordered accordingly, to reference AD 2001-02-07.

Request to Delay Issuance of Final Rule

One commenter requests that the FAA delay issuance of the final rule until the airplane manufacturer has revised Boeing Service Bulletin 767-54-0081, dated July 29, 1999. The commenter states that, while accomplishing the proposed requirements, the commenter found numerous deviations from Boeing Service Bulletin 767-54-0081 and its associated service bulletins. The commenter states that issuing the final rule before the service bulletin is revised would force operators to request alternative methods of compliance (AMOC's) to address these deviations.

The FAA finds that a change to the final rule is necessary in this regard, but we do not concur with the commenter's request to delay issuance of this final rule. Boeing Service Bulletin 767-54-0081 is not scheduled to be revised until June 2001, and the FAA finds that, in view of the urgency of the unsafe condition addressed by this AD, it would be inappropriate to delay issuance of the final rule to wait for such a revision of the service bulletin to become available.

However, to relieve any burden on operations due to necessary deviations from the service bulletin, the FAA finds that it is appropriate to allow a Boeing Company Designated Engineering Representative (DER) to approve AMOC's. Accordingly, paragraph (d) as it appeared in the proposed rule has been revised in this final rule to include subparagraphs (d)(1) and (d)(2), with paragraph (d)(1) containing all information included in paragraph (d) of the proposed rule, and paragraph (d)(2) containing the information about approval of AMOC's by a Boeing Company DER.

Request to Give Credit for AMOC's

One commenter requests that AMOC's approved for AD 2000-12-17, amendment 39-11795 (65 FR 37843, June 19, 2000), and AD 2000-07-05, amendment 39-11659 (65 FR 18883, April 10, 2000), also be approved for this AD. The commenter is referring to certain requirements of paragraph (b), as clarified by Notes 2 and 3, of the proposed rule, which state that service bulletins required by those AD's are acceptable for compliance with the applicable actions required by paragraph (b) of this AD.

The FAA concurs with the commenter's request. AMOC's approved for AD 2000-12-17 and AD 2000-07-05, as well as those approved for AD 94-11-02, amendment 39-8918 (59 FR 27229, May 26, 1994), and AD 2001-02-07 (which was mentioned above), are considered approved for compliance with the applicable actions required by paragraph (b) of this AD. Accordingly, a new paragraph (d)(3) has been added to this final rule to state that AMOC's approved for those AD's are considered acceptable for compliance with paragraph (b) of this AD.

Request to Clarify Flight Cycle Threshold Formula

One commenter requests clarification of certain conditions for the use of the flight cycle threshold formula listed in Figure 1 of Boeing Service Bulletin 767-54-0081, dated July 29, 1999. Condition 2 of the formula lists nine service bulletins that must be accomplished if the formula is to be used. The commenter specifically requests clarification of the compliance thresholds to

accomplish the actions described in those service bulletins. The commenter points out that many of the listed service bulletins specify initial inspection thresholds that will have already passed for some airplanes. The commenter requests that the FAA revise the requirement to state that "the inspections should be accomplished prior to reaching the service bulletin threshold or 20 years, whichever occurs later."

The FAA concurs that it is necessary to clarify the threshold for doing the service bulletins listed in Condition 2 of the flight cycle threshold formula, though we do not concur with the commenter's suggested change. The FAA concurs that the actions in the listed service bulletins must be done no later than 20 years since the date of delivery of the airplane for the formula to apply. However, the FAA does not concur that the threshold should be 20 years since date of delivery or prior to the threshold listed in the service bulletin, whichever occurs *later*. The FAA finds that deferring accomplishment of the service bulletins beyond 20 years would not provide an acceptable level of safety. Therefore, paragraph (a)(1) of this AD has been revised to clarify that, for the formula to be used, the actions in the service bulletins referenced in Figure 1 must be accomplished no later than 20 years since date of manufacture of the airplane.

Request to Revise Compliance Time in Paragraph (a)(1)

One commenter requests that the FAA revise the compliance time in paragraph (a)(1) to remove the reference to 37,500 total flight cycles. The commenter states that the compliance time should be, "Prior to the airplane…accumulating 20 calendar years from the airplane initial delivery date, or having reached the flight cycle threshold as defined by the flight cycle threshold formula described in Figure 1 of the service bulletin, whichever occurs first." The commenter states that this revision would make the AD more consistent with the service bulletin, because the flight cycle threshold formula takes into account the greater fatigue damage resulting from longer-duration flights. The commenter states that the flight cycle count resulting from this formula is never greater than 37,500 flight cycles, and may be significantly less.

The FAA does not concur with the commenter's request to revise paragraph (a)(1) of the AD. We acknowledge that the wording and logic of the compliance times in the AD differ from those in the service bulletin, but we have determined that the compliance times in this AD and in the service bulletin are roughly equivalent for airplanes flying longer-duration flights. For example, an airplane that flies routes that average 8 hours would reach the 20-year threshold before it reached the 37,500 flight cycle threshold. Once the airplane has reached the 20-year threshold, if the operator does not choose to do the requirements of this AD at that time, the operator would then have the option to use the flight cycle threshold formula to determine the alternative threshold (provided that the criteria in Figure 1 are met). No change to the final rule is necessary in this regard.

Request to Identify This AD as a Supersedure of AD 94-11-02

One commenter requests that the FAA revise the proposed rule to state that this AD is a supersedure of AD 94-11-02. The commenter states that Boeing Service Bulletin 767-54-0069 was approved as an alternative method of compliance (AMOC) for the requirements of that AD.

The FAA does not concur with the commenter's request. This AD does not supersede AD 94-11-02. However, the FAA acknowledges that accomplishment of Boeing Service Bulletin 767-54-0069 does terminate the inspections required by AD 94-11-02. No change to the final rule is necessary in this regard.

Request to Revise Cost Impact Information

One commenter requests that the FAA revise the proposed rule to more accurately represent the cost impact of this AD. The commenter states that the costs estimated in the proposed rule do not accurately reflect the actual costs that will be incurred by operators. The commenter states that the actual time required to do Boeing Service Bulletin 767-54-0081 is between 2,000 and 3,000 work hours, and the time for the associated service bulletins is between 340 and 550 work hours.

The FAA does not concur with the commenter's request to revise the estimate of cost impact. The number of work hours necessary to accomplish the required actions, restated below, is based on the information provided by the airplane manufacturer in its service bulletins. This number represents the time necessary to perform only the actions actually required by this AD—the "direct"

costs. The FAA recognizes that, in accomplishing the requirements of any AD, operators may incur "incidental" costs in addition to the "direct" costs. The cost analysis in AD rulemaking actions, however, typically does not include incidental costs, such as planning time or time necessitated by other administrative actions. Because incidental costs may vary significantly from operator to operator, they are almost impossible to calculate. No change to the final rule is necessary in this regard.

Request to Address Warranty and Reimbursement Issues

One commenter addresses its comment to both Boeing and the FAA. The commenter makes several requests pertaining to warranty and cost reimbursement issues.

The FAA finds that an airworthiness directive is not an appropriate vehicle to resolve these specific comments. The FAA does not involve itself in contractual issues between the airplane (or parts) manufacturer and its customers. No change to the AD can be made in this regard.

Conclusion

After careful review of the available data, including the comments noted above, the FAA has determined that air safety and the public interest require the adoption of the rule with the changes previously described. The FAA has determined that these changes will neither increase the economic burden on any operator nor increase the scope of the AD.

Cost Impact

There are approximately 381 Model 767 series airplanes of the affected design in the worldwide fleet. The FAA estimates that 159 airplanes of U.S. registry will be affected by this AD, that it will take approximately 1,006 work hours per airplane, including time for gaining access and closing up, to accomplish the required modifications per Boeing Service Bulletin 767-54-0081, and that the average labor rate is $60 per work hour. Based on these figures, the cost impact of this requirement on U.S. operators is estimated to be $9,597,240, or $60,360 per airplane.

It will take approximately 16 work hours per airplane to accomplish the required actions described in Boeing Service Bulletin 767-29-0057, at an average labor rate of $60 per work hour. Required parts will be provided at no cost by the airplane manufacturer. Based on these figures, the cost impact of these actions on U.S. operators is estimated to be $152,640, or $960 per airplane.

It will take approximately 106 work hours per airplane to accomplish the actions described in Boeing Service Bulletin 767-53-0069, at an average labor rate of $60 per work hour. Required parts will be provided at no cost by the airplane manufacturer. Based on these figures, the cost impact of these actions on U.S. operators is estimated to be $1,011,240, or $6,360 per airplane. Because the actions described in this service bulletin are already required by another AD action, this requirement adds no new costs for affected operators.

It will take approximately 1 work hour per airplane to accomplish the actions described in Boeing Service Bulletin 767-54-0083, at an average labor rate of $60 per work hour. Required parts will be provided at no cost by the airplane manufacturer. Based on these figures, the cost impact of these actions on U.S. operators is estimated to be $9,540, or $60 per airplane.

It will take approximately 4 work hours per airplane to accomplish the actions described in Boeing Service Bulletin 767-54-0088, Revision 1, at an average labor rate of $60 per work hour. Required parts will be provided at no cost by the airplane manufacturer. Based on these figures, the cost impact of these actions on U.S. operators is estimated to be $38,160, or $240 per airplane.

It will take approximately 20 work hours per airplane to accomplish the actions described in Boeing Service Bulletin 767-54A0094, Revision 1, at an average labor rate of $60 per work hour. Required parts will be provided at no cost by the airplane manufacturer. Based on these figures, the cost impact of these actions on U.S. operators is estimated to be $190,800, or $1,200 per airplane. Because the actions described in this service bulletin are already required by another AD action, this requirement adds no new costs for affected operators.

It will take approximately 5 work hours per airplane to accomplish the actions described in Boeing Service Bulletin 767-57-0053, Revision 2, at an average labor rate of $60 per work hour. Based on these figures, the cost impact of these actions on U.S. operators is estimated to be $47,700,

or $300 per airplane. Because the actions described in this service bulletin are already required by another AD action, this requirement adds no new costs for affected operators.

Some operators may have accomplished certain modifications on some or all of the airplanes in their fleets, while other operators may not have accomplished any of the modifications on any of the airplanes in their fleets. The future cost impact of this AD may be reduced below the estimates provided above if some airplanes have already been modified.

The cost impact figures discussed above are based on assumptions that no operator has yet accomplished any of the requirements of this AD action, and that no operator would accomplish those actions in the future if this AD were not adopted. The cost impact figures discussed in AD rulemaking actions represent only the time necessary to perform the specific actions actually required by the AD. These figures typically do not include incidental costs, such as the time required to gain access and close up, planning time, or time necessitated by other administrative actions.

Regulatory Impact

The regulations adopted herein will not have a substantial direct effect on the States, on the relationship between the national Government and the States, or on the distribution of power and responsibilities among the various levels of government. Therefore, it is determined that this final rule does not have federalism implications under Executive Order 13132.

For the reasons discussed above, I certify that this action (1) is not a "significant regulatory action" under Executive Order 12866; (2) is not a "significant rule" under DOT Regulatory Policies and Procedures (44 FR 11034, February 26, 1979); and (3) will not have a significant economic impact, positive or negative, on a substantial number of small entities under the criteria of the Regulatory Flexibility Act. A final evaluation has been prepared for this action and it is contained in the Rules Docket. A copy of it may be obtained from the Rules Docket at the location provided under the caption "ADDRESSES."

List of Subjects in 14 CFR Part 39

Air transportation, Aircraft, Aviation safety, Incorporation by reference, Safety.

Adoption of the Amendment

Accordingly, pursuant to the authority delegated to me by the Administrator, the Federal Aviation Administration amends part 39 of the Federal Aviation Regulations (14 CFR part 39) as follows:

PART 39 - AIRWORTHINESS DIRECTIVES

1. The authority citation for part 39 continues to read as follows:

Authority: 49 U.S.C. 106(g), 40113, 44701.

§ 39.13 [Amended]

2. Section 39.13 is amended by adding the following new airworthiness directive:

AIRWORTHINESS DIRECTIVE

Aircraft Certification Service
Washington, DC

U.S. Department
of Transportation
**Federal Aviation
Administration**

We post ADs on the internet at "av-info.faa.gov"

2001-06-12 BOEING: Amendment 39-12159. Docket 99-NM-127-AD.

Applicability: Model 767 series airplanes powered by General Electric engines, line numbers 1 through 663 inclusive, certificated in any category.

Note 1: This AD applies to each airplane identified in the preceding applicability provision, regardless of whether it has been modified, altered, or repaired in the area subject to the requirements of this AD. For airplanes that have been modified, altered, or repaired so that the performance of the requirements of this AD is affected, the owner/operator must request approval for an alternative method of compliance in accordance with paragraph (d)(1) of this AD. The request should include an assessment of the effect of the modification, alteration, or repair on the unsafe condition addressed by this AD; and, if the unsafe condition has not been eliminated, the request should include specific proposed actions to address it.

Compliance: Required as indicated, unless accomplished previously.

To prevent fatigue cracking in the primary strut structure and consequent reduced structural integrity of the strut, accomplish the following:

Modification

(a) Modify the nacelle strut and wing structure on both the left and right sides of the airplane, in accordance with Boeing Service Bulletin 767-54-0081, dated July 29, 1999, at the later of the times specified in paragraphs (a)(1) and (a)(2) of this AD.

(1) Prior to the accumulation of 37,500 total flight cycles, or within 20 years since date of manufacture, whichever occurs first. Use of the optional threshold formula described in Figure 1 on page 54 of the service bulletin is an acceptable alternative to the 20-year threshold provided that the conditions specified in Figure 1 of the service bulletin are met. For the optional threshold formula in Figure 1 to be used, actions in the service bulletins listed in Item 2 of Figure 1 must be accomplished no later than 20 years since the airplane's date of manufacture.

(2) Within 3,000 flight cycles after the effective date of this AD.

(b) Prior to or concurrently with the accomplishment of the modification of the nacelle strut and wing structure required by paragraph (a) of this AD; as specified in paragraph 1.D., Table 2, "Prior or Concurrent Service Bulletins," on page 8 of Boeing Service Bulletin 767-54-0081, dated July 29, 1999; accomplish the actions specified in Boeing Service Bulletin 767-29-0057, dated December 16, 1993; Boeing Service Bulletin 767-54-0069, Revision 1, dated January 29, 1998, or Revision 2, dated August 31, 2000; Boeing Service Bulletin 767-54-0083, dated September 17, 1998; Boeing Service Bulletin 767-54-0088, Revision 1, dated July 29, 1999; Boeing Service Bulletin 767-54A0094, Revision 1, dated September 16, 1999; and Boeing Service Bulletin 767-57-0053, Revision 2, dated September 23, 1999; as applicable, in accordance with those service bulletins.

Note 2: AD 2000-12-17, amendment 39-11795, requires accomplishment of Boeing Service Bulletin 767-57-0053, Revision 2, dated September 23, 1999. However, inspections and rework accomplished in accordance with Boeing Service Bulletin 767-57-0053, Revision 1, dated October 31, 1996, are acceptable for compliance with the applicable actions required by paragraph (b) of this AD.

Note 3: AD 2000-07-05, amendment 39-11659, requires accomplishment of Boeing Service Bulletin 767-54A0094, dated May 22, 1998. Inspections and rework accomplished in accordance with Boeing Service Bulletin 767-54A0094, dated May 22, 1998, are acceptable for compliance with the applicable actions required by paragraph (b) of this AD.

Note 4: AD 2001-02-07, amendment 39-12091, requires accomplishment of Boeing Service Bulletin 767-54-0069, Revision 1, dated January 29, 1998, or Revision 2, dated August 31, 2000. Inspections and rework accomplished in accordance with those service bulletins are acceptable for compliance with the applicable actions required by paragraph (b) of this AD.

Repairs

(c) If any damage to the airplane structure is found during the accomplishment of the modification required by paragraph (a) of this AD, and the service bulletin specifies to contact Boeing for appropriate action: Prior to further flight, repair in accordance with a method approved by the Manager, Seattle Aircraft Certification Office (ACO), FAA, or a Boeing Company Designated Engineering Representative (DER) who has been authorized by the FAA to make such findings. For a repair method to be approved by the Manager, Seattle ACO, as required by this paragraph, the Manager's approval letter must specifically reference this AD.

Alternative Methods of Compliance

(d) (1) An alternative method of compliance or adjustment of the compliance time that provides an acceptable level of safety may be used if approved by the Manager, Seattle ACO. Operators shall submit their requests through an appropriate FAA Principal Maintenance Inspector, who may add comments and then send it to the Manager, Seattle ACO.

(2) An alternative method of compliance that provides an acceptable level of safety may be used for paragraph (a) of this AD, if it is approved by a Boeing Company DER who has been authorized by the FAA to make such findings.

(3) Alternative methods of compliance, approved previously in accordance with AD 2000-12-17, amendment 39-11795; AD 2000-07-05, amendment 39-11659; AD 2001-02-07, amendment 39-12091; and AD 94-11-02, amendment 39-8918; are approved as alternative methods of compliance with the applicable actions in paragraph (b) of this AD.

Note 5: Information concerning the existence of approved alternative methods of compliance with this AD, if any, may be obtained from the Seattle ACO.

Special Flight Permits

(e) Special flight permits may be issued in accordance with sections 21.197 and 21.199 of the Federal Aviation Regulations (14 CFR 21.197 and 21.199) to operate the airplane to a location where the requirements of this AD can be accomplished.

Incorporation by Reference

(f) Except as required by paragraph (c) of this AD, the actions shall be done in accordance with Boeing Service Bulletin 767-54-0081, dated July 29, 1999; Boeing Service Bulletin 767-29-0057, dated December 16, 1993; Boeing Service Bulletin 767-54-0069, Revision 1, dated January 29, 1998, or Revision 2, dated August 31, 2000; Boeing Service Bulletin 767-54-0083, dated September 17, 1998; Boeing Service Bulletin 767-54-0088, Revision 1, dated July 29, 1999; Boeing Service

Bulletin 767-54A0094, Revision 1, dated September 16, 1999; and Boeing Service Bulletin 767-57-0053, Revision 2, dated September 23, 1999; as applicable.

(1) The incorporation by reference of Boeing Service Bulletin 767-54-0081, dated July 29, 1999, is approved by the Director of the Federal Register, in accordance with 5 U.S.C. 552(a) and 1 CFR part 51.

(2) The incorporation by reference of Boeing Service Bulletin 767-57-0053, Revision 2, dated September 23, 1999, was approved previously by the Director of the Federal Register as of July 24, 2000 (65 FR 37843, June 19, 2000).

(3) The incorporation by reference of Boeing Service Bulletin 767-29-0057, dated December 16, 1993; Boeing Service Bulletin 767-54-0069, Revision 1, dated January 29, 1998; Boeing Service Bulletin 767-54-0083, dated September 17, 1998; and Boeing Service Bulletin 767-54-0088, Revision 1, dated July 29, 1999; was approved previously by the Director of the Federal Register as of October 17, 2000 (65 FR 58641, October 2, 2000).

(4) The incorporation by reference of Boeing Service Bulletin 767-54-0069, Revision 2, dated August 31, 2000; and Boeing Service Bulletin 767-54A0094, Revision 1, dated September 16, 1999, was approved previously by the Director of the Federal Register as of March 5, 2001 (66 FR 8085, January 29, 2001).

(5) Copies may be obtained from Boeing Commercial Airplane Group, P.O. Box 3707, Seattle, Washington 98124-2207. Copies may be inspected at the FAA, Transport Airplane Directorate, 1601 Lind Avenue, SW., Renton, Washington; or at the Office of the Federal Register, 800 North Capitol Street, NW., suite 700, Washington, DC.

Effective Date

(g) This amendment becomes effective on May 7, 2001.

FOR FURTHER INFORMATION CONTACT: John Craycraft, Aerospace Engineer, Airframe Branch, ANM-120S, FAA, Seattle Aircraft Certification Office, 1601 Lind Avenue, SW., Renton, Washington 98055-4056; telephone (425) 227-2782; fax (425) 227-1181.

Issued in Renton, Washington, on March 22, 2001.
Donald L. Riggin, Acting Manager, Transport Airplane Directorate, Aircraft Certification Service.